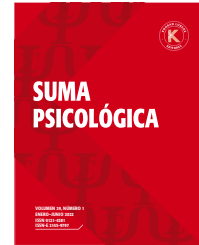




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Children Exposed to Interparental Violence: A Study of Portuguese Children from 7-9 Years of Age

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KEYWORDS

Impact, interparental conflict, violence, young children, parent-child

Abstract Introduction: Exposure to interparental violence is a type of child maltreatment linked to a higher risk of physical and mental health problems. This research considers the experiences of young Portuguese children exposed to interparental violence. The goal is to explore the associations between interparental conflict in children, their perceptions of conflict properties, threat, self-blame, and the relationship with their parents. **Method:** The research protocol was applied to 888 Portuguese children between 7 and 9 years of age, of whom 123 are victims of interparental violence. **Results:** The results showed that witnessing interparental conflict is positively correlated with children's self-blame and insight into conflict properties and negatively correlated with children's insight into the parent-child relationship. **Conclusion:** These results provide strong support for the hypothesis that witnessing interparental conflict is associated with adverse outcomes in young children. Findings highlight the importance of identifying children exposed to interparental conflict in order to develop appropriate intervention programmes.

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Niños expuestos a violencia interparental: un estudio de niños portugueses de 7 a 9 años

PALABRAS CLAVE

Impacto, conflicto interparental, violencia, niños pequeños, padre-hijo

Resumen Introducción: La exposición a la violencia interparental es un tipo de maltrato infantil, y está relacionada con mayor riesgo de desarrollo de problemas de salud física y mental. Esta investigación analiza las experiencias de los niños portugueses expuestos a la violencia interparental. El objetivo es explorar la relación entre el conflicto interparental en

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los niños, sus percepciones sobre las propiedades del conflicto, la amenaza, la culpabilidad y la relación con sus padres. **Método:** Se ha aplicado el protocolo de investigación a 888 niños portugueses de entre 7 y 9 años, no víctimas ($n = 765$) y víctimas de la violencia interparental ($n = 123$). **Resultados:** Los resultados mostraron que presenciar el conflicto interparental está positivamente asociado a la percepción de culpabilidad de los niños y la percepción de las propiedades del conflicto y negativamente correlacionada con su percepción de la relación padre-hijo. **Conclusión:** Estos resultados soportan la hipótesis de que presenciar un conflicto interparental está asociado al desarrollo de problemas en niños pequeños. Los resultados destacan la importancia de identificar a los niños que han presenciado el conflicto interparental para desarrollar programas de intervención adecuados.

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The impact of interparental conflict on children's opportunities for development may be constructive (e.g., amicable divorce) (Warmuth et al., 2020) or destructive (e.g., interparental violence), as revealed by children's internalising and externalising of symptoms (Cummings & Davies, 2010). Interparental violence is a type of child and adolescent maltreatment (Turner et al., 2017) that results from verbal, emotional, and physical violence between parents (Katz, 2016). It can be characterised by the child(ren) either seeing, hearing, or being informed of the violence between parents or perceiving the consequences of the violence (Cummings & Davies, 2010). The impact on children witnessing interparental violence has been extensively researched (e.g., Sharp et al., 2020).

Several studies have attested the prevalence of children witnessing interparental violence (e.g., Harold & Sellers, 2018; Mendes et al., 2017). Research from different countries and cultures, using different methodologies, found interparental violence rates ranging from 3.8% to 23.7%. These studies identified different types of violence. For instance, a recent study from Portugal found that nearly 3.8% of children witness domestic violence (Almeida et al., 2020). A review of 24 studies revealed that 7% to 12.5% of children in Nordic countries had witnessed domestic violence (Kloppen et al., 2015); a study of university students in Sri Lanka revealed that 16% to 18% of them had perceived interparental psychological aggression (Haj-Yahia & Zoysa, 2008). Another study from the U.S.A. found a much higher prevalence of interparental violence, with 23.7% reporting exposure to interparental violence once or twice (Sharp et al., 2020). It is important to consider that all violence, including nonphysical aggression (such as coercive and controlling behaviours on the part of the perpetrator), can affect children and contribute to emotional/behavioural problems (Katz, 2016). The negative impact of interparental violence on different levels is well documented in several studies (e.g., Lin et al., 2020), indicating various problems in childhood in the short and long term (e.g., Hou et al., 2016). Furthermore, it is strongly correlated with direct child abuse (Lloyd, 2018).

In 2019, approximately 12,639 children were victims of domestic violence in Portugal (Comissão de Proteção de Crianças e Jovens [Child and Youth Protection Commission - CPCJ], 2020). Considering the high rate of reported cases of parental violence in Portugal and its negative impact, it is crucial to identify and study the phenomenon in this country.

The Impact of Interparental Violence

Children who witness interparental violence in their homes are more likely to develop internalising and externalising problems (Almeida et al., 2008). Perceiving interparental conflicts might significantly affect the psychological, emotional, cognitive, physical, and behavioural aspects of a child's development (Lin et al., 2020). Children from violent families justify and exhibit higher levels of aggression (Almeida et al., 2008), relationship abuse (Almeida et al., 2020; Ragavan et al., 2020; Zhang et al., 2019), hostility, oppositional behaviour, and substance abuse (Sani et al., 2017).

Interparental violence is also correlated with children's high levels of fear, anxiety (Lin et al., 2020), post-traumatic stress symptoms (Haj-Yahia et al., 2019), depression, social avoidance, attention deficit disorder, and it may reduce their cognitive and social abilities (Cummings & Davies, 2010). Children who witness interparental violence tend to feel more insecure and have low self-esteem (Cummings et al., 2007), have less favourable self-representations (Silva et al., 2016), and experience sleep disturbances (Flannery et al., 2019). In addition, these children tend to present high levels of psychosomatic symptoms such as stomachaches, headaches, asthma, insomnia, enuresis, nightmares, sleepwalking, and intense fear (Davies et al., 2009).

Parent-child Relationship and Exposure to Interparental Violence

Exposure to interparental violence can impact the quality of the relationship between children and their parents (Pereira et al., 2020; Selçuk et al., 2020). Family stress leads to a poor parent-child relationship (Webb et al., 2018), and some studies indicate a higher probability of direct maltreatment (physical, sexual abuse, child neglect) of children when there is interparental violence (Boel-Studt & Renner, 2014). When exposed to interparental violence, children tend to perceive lower levels of support from their parents and have more negative interactions with their parents (Silva & Calheiros, 2018). Marital conflict is related to mothers' stressed responses to children's negative emotions (Frankel et al., 2015), and abusive parenting mediates the association between interparental violence and externalising

problems in children (van Dijk et al., 2020; Warmuth et al., 2020).

Exposure to interparental violence may affect the child's secure attachment (Lin et al., 2020; Selçuk et al., 2020), and the relationship between the child and its mother can be negatively affected (Humphreys & Bradbury-Jones, 2015). There are significant differences between those children who are victims and those who are non-victims of interparental violence since victim children perceive their mothers as less nurturing, affectionate, and authoritative (Grych et al., 2002). The mother's parenting practices can explain the children's externalising symptoms (Warmuth et al., 2020). Insecure attachments influence children's development, thereby affecting their ability to communicate and interact with others and to establish healthy relationships throughout their lives (e.g., Lin et al., 2020).

Parents involved in interparental violence perform poorly in conflict resolution and tend to promote relationships with their children that entail intense self-blame (Fosco & Grych, 2010; Selçuk et al., 2020) and threat (Selçuk et al., 2020). A study conducted in the Netherlands evidenced a low quality of parent-child emotional dialogues in families exposed to interparental violence. The results also revealed a lack of cooperation and exploration in the dialogues of children exposed to interparental violence when compared with those with no exposure, and their mothers showed lower sensibility (Visser et al., 2016).

Theoretical Perspectives - Children's Age and Exposure to Interparental Violence

The above findings have been conceptualised within a cognitive-contextual model, focusing on the importance of children's perceptions regarding parental conflict, which determines their adjustment (Grych & Fincham, 1990; McDonald & Grych, 2006; Selçuk et al., 2020). The model proposes that when there is parental conflict, children try to understand whether they are being blamed for the conflict and also try to solve the problem (McDonald & Grych, 2006). Self-blaming may be associated with the development of low self-esteem (Grych & Fincham, 1990). The model also specifies that children evaluate parental conflicts based on the perceived threat and their experience of well-being, showing more internalising problems when they recognise the conflicts as threatening (McDonald et al., 2009). Children's reactions to interparental conflict result from their willingness to understand the implications of the conflict concerning the preservation of their own and their family's emotional security (Grych & Fincham, 1990). Recent studies identified exposure to interparental violence as a predictor of threat and low coping efficacy appraisals (Figge et al., 2021). If children feel the parental conflict is threatening, and if they feel unable to address it, they will feel more anxious and helpless (Grych & Fincham, 1990).

Children's age has been cited as an important factor for children who witness interparental violence with regard to their adjustment and how they deal with those events (Holt et al., 2008; Mueller & Tronick, 2019). The impact of interparental conflicts on the youngest children (3-5 years) is amplified because of the greater dependence on their parents as caregivers (Tronick, 2017). Childhood experiences

are relevant to socioemotional and cognitive development and the maturation of associated brain structures. There is evidence that exposure to interparental violence at very early ages has serious negative consequences for development (Mueller & Tronick, 2019). Exposed children can exhibit physiological changes in their (sympathetic and parasympathetic) nervous systems, affecting how they respond to stressful situations (Davies et al., 2009).

The age of child victims of interparental violence is considered a significant variable with relation to their responses and overall adjustment. The cognitive-contextual model adapted from Fosco et al. (2007) also includes some characteristics of children, such as age, to explain the impact of interparental violence. The behaviour of the youngest children tends to be more influenced by the negative experience of witnessing interparental conflict. In contrast to younger children, older children's behaviour tends to be more influenced by cognition, as the former have less efficient coping strategies for evaluating, understanding, and responding successfully to this type of violence (Grych & Fincham, 1990). Older children experience less self-blame and threat (Jouriles et al., 2000), fewer positive emotions, higher anger levels, and tend to respond to interparental conflict behaviourally, becoming more easily engaged in the parental conflict (Cummings et al., 2007).

To the best of our knowledge, no prior studies in Portugal have examined the impact of interparental violence in terms of self-blame, threat, and the parent-child relationship based on the perspective of such young children. Portugal is a highly patriarchal society, and this cultural factor may increase the likelihood of violence within the family (CPCJ, 2020; Martinelli, 2020). Given its distinctive impact, the study of exposure to interparental violence in such young children is an important disparity in the research literature.

In a sample of Portuguese children from 7 to 9 years of age, this study intends to analyse: (a) the descriptive findings of the Children's Perceptions of Interparental Conflict Scale (EPCCI-C: Sani & Almeida, 2016) for the victim sample; (b) the children's perception of interparental conflict and in particular verify if there are differences between the sample of the normative population and the sample with a history of interparental violence in their lives; (c) any age differences in the perception of interparental conflict.

Method

Participants

The present article analysed a large sample ($n = 888$) of Portuguese children (Table 1). We contacted social services to identify children recognised as victims of interparental violence ($n = 123$, 13.9%). These children had histories of interparental violence, having witnessed chronic and persistent interparental anger or conflict during their lives. In this group, G1, children were between 7 and 9 years of age ($M = 7.96$, $SD = 0.84$). The gender distribution of G1 was approximately equal: 52% were male ($n = 64$) and 48% were female ($n = 59$). In terms of schooling level, 17.9% were in the 1st grade ($n = 22$), 30.1% were in the 2nd grade ($n = 37$),

26.8% were in the 3rd grade ($n = 33$) and 25.2% were in the 4th grade ($n = 31$).

We also contacted schools in order to recruit children who were not recognised as victims of violence in their homes, i.e., none of the children had a record of conflicts in their families ($n = 765$, 86.1%). In this group, G2, participants also were between 7 and 9 years of age ($M = 8.14$, $SD = .78$). The gender distribution was also approximately equal: 51.6% were male ($n = 395$) and 48.4% were female ($n = 370$). In terms of schooling level, 34.9% were in the 2nd grade ($n = 267$), 34.2% were in the 3rd grade ($n = 262$), and 30.8% were in the 4th grade ($n = 236$).

Table 1. Children victims of interparental violence (G1) and children not recognised as victims (G2), according to age, gender, and school grade

		G1 ($n = 123$)	%	G2 ($n = 765$)	%
Gender	Male	64	52	395	51.6
	Female	59	48	370	49.4
Age	7	46	37.4	197	25.7
	8	36	29.3	263	34.4
	9	41	33.3	305	39.9
Grade	1 st	22	17.9	-	-
	2 nd	37	30.1	267	34.9
	3 rd	33	26.8	262	34.3
	4 th	31	25.2	236	30.8

Instruments

A brief questionnaire was developed to assess the participants' socio-demographic characteristics. We also used the *Escala de Percepção da Criança Sobre os Conflitos Interparentais* (EPCCI-C: Sani & Almeida, 2016), a Portuguese version of the CPIC-Y (Grych, 2000; McDonald & Grych, 2006) that is simplified and validated for children of 7-9 years of age. This scale measures the perception of interparental conflict (McDonald & Grych, 2006) in a dichotomous "Yes/No" format in order to determine whether particular statements are true or not for the children. The Portuguese version of this instrument consists of the 33 items referred to in the paper by McDonald and Grych (2006), with subscales of: 11 items assessing conflict properties, 6 items measuring threat, 4 items measuring self-blame, and 12 items measuring the parent-child relationship. While higher scores on the first three subscales reveal a possible negative impact on the child, a higher score on the last subscale indicates a more positive relationship between the child and their parents. The Portuguese version of the CPIC-Y has good psychometric properties (Sani & Almeida, 2016) with a Cronbach's Alpha of .80, with 0.79 for conflict properties, .79 for threat, and .70 for self-blame. The Cronbach's Alpha for the parent-child relationship in this study is .77.

Procedure

For G1, children who had witnessed interparental violence, a description of the study was mailed to social ser-

vices institutions that support and intervene with victims of family violence. We recruited children who had lived with their parents at some stage, even if they were currently institutionalised. The occurrence of interparental violence was verified based on the social services records. In these cases, children were assessed individually after the consent of their parents and the institution. The G2 participants completed the EPCCI-C (Sani & Almeida, 2016) in the classroom during a regular school day. During the administration of the EPCCI-C, further information was provided to any children who showed difficulties in understanding specific words or expressions.

For both sample groups (G1 and G2), parents were previously informed regarding the content of the study, and consent letters were used to obtain the parental authorisations in order for the children to participate in the study. All participants were asked to participate voluntarily, and the objectives of the study were explained orally and described in writing. For the largest group (G2), administration of the EPCCI-C was conducted in small groups in the classrooms; for the group of victims (G1), the administration of the EPCCI-C was carried out individually.

The study was conducted in accord with the ethical principles outlined in the Declaration of Helsinki (World Medical Association, 2013) and the Ethical Principles of Psychologists and Code of Conduct (APA, 2017). The confidentiality of the results concerning the subjects was ensured, and no incentives (fees or extra credit) were offered in exchange for participation.

Data were analysed by means of IBM Statistical Package for Social Sciences (IBM SPSS for Windows, version 27.0) software. Additionally, we analysed the effect sizes considering Cohen's d (Cohen, 1988).

Results

Descriptive Findings

Almost all of the children (84.6%) in G1 reported that their parents are not usually nice to each other; while 81.2% indicated that after a quarrel, their parents are not nice to each other, and 71.5% assumed that their parents do not make up quickly after a quarrel. The majority of G1 reported physical violence in their homes: 52% indicated that their parents have broken or thrown things during an argument, and 54.5% reported having observed their parents hit and push each other.

In G2, 42.4% reported that their parents are not usually nice to each other, 26.8% indicated that after a quarrel, their parents are not nice to each other, and 2.9% assumed that their parents do not make up quickly after a quarrel. Few children reported physical violence in their homes: 5% indicated that their parents have broken or thrown things during an argument, and 7.6% reported having observed their parents hit and push each other.

Differences in the Perception of Interparental Conflicts

We focus on the differences in the perception of interparental conflicts in the two groups: G1 (children who are vic-

tims of interparental violence) and G2 (children who are not recognised as victims of interparental violence). We tested for the normality of their distributions using the Kolmogorov-Smirnov test. The values obtained ($p < .05$) reveal a lack of normality (Table 2) and that non-parametric approaches to establishing the statistical significance of differences between the groups were appropriate: the Mann-Whitney U test was used.

Table 2. The Kolmogorov-Smirnov test for G1 and G2

EPCCI-C sub-scales	Group	Kolmogorov-Smirnov		
		Statistic	df	p
Conflict Properties	G1	.180	123	<.001*
	G2	.190	765	<.001*
Threat	G1	.239	123	<.001*
	G2	.247	765	<.001*
Self-Blame	G1	.298	123	<.001*
	G2	.402	765	<.001*
Parent-Child Relationship	G1	.224	123	<.001*
	G2	.451	765	<.001*

Note. * $p < .001$

Group Differences Considering Victimization

Table 3 shows the results of the Mann-Whitney test for the four factors of the EPCCI-C, considering the children's experience of living with violence. There are differences between the following subscales: perception of conflict properties, self-blame, and the parent-child relationship. There are no significant differences in perception regarding threat. Children in G1 show higher values on the subscale of conflict properties than children in G2, with a large effect size ($d = 2.55$). Compared to children in G2, children in G1 also show higher self-blame in relation to conflicts between parents, with a large effect size ($d = 1.28$).

Conversely, children in G2 have higher scores on the parent-child relationship subscale, with a large effect size ($d = 1.08$), indicating better relationships with their parents than children in G1. There are no significant differences between G1 and G2 regarding threat since both groups scored at high levels. Whether they are child victims or not, children perceive conflicts between their parents as threatening.

Table 3. Differences between child victims (G1) and not recognised as victims (G2) in EPCCI-C sub-scales

EPCCI-C sub-scales	G1 (n = 123)	G2 (n = 765)	U	p
Conflict Properties	737.27	397.43	11036.5	<.001*
Threat	461.24	441.81	44988.5	.413
Self-Blame	500.40	435.51	40171.5	.002**
Parent-Child Relationship	257.25	474.61	24016.0	.000*

Note. * $p < .001$, ** $p < .01$

Group Differences Considering Age

The sample was split into 3 groups based on age (7, 8, and 9 years of age). There are no differences in perception among the different ages of our sample (Table 4) in terms of perceived conflict properties, threat, self-blame, and relationship with parents.

Discussion

The literature evidences several appalling negative impacts of child exposure to interparental violence (Katz, 2016; van Eldik et al., 2020). Our study aimed to make a contribution by investigating an age group that remains neglected in the Portuguese population. This study provides strong validation of the association between the experience of interparental conflict and adverse outcomes in young children (e.g., Selçuk et al., 2020). The group of victims in the sample reported a hostile living environment in their problematic homes; they described physical aggression between their parents, as reported in other studies (e.g., Katz, 2016; Turner et al., 2017).

One of the goals of this study was to evaluate differences in perceptions between young children who are victims of interparental violence and a similar group of children who had no history of victimisation. The victims revealed higher scores in perceiving their parents as being more conflictive and less supportive, corroborating several previous studies (e.g., Selçuk et al., 2020). Prior research has indicated that this, in turn, accounts for a higher perception of self-blame in victims, which leads these children to feel responsible for the occurrence of conflict between their parents (Fosco & Grych, 2010; Miller et al., 2014). Moreover, some studies

Table 4. Age differences for victims of interparental violence in EPCCI-C sub-scales

EPCCI-C sub-scales	Age 7 (n = 46)		Age 8 (n = 36)		Age 9 (n = 41)		F	p
	M	SD	M	SD	M	SD		
Conflict Properties	8.02	2.436	7.75	2.902	7.41	3.376	.471	.625
Threat	4.67	1.713	4.78	1.658	4.66	1.637	.057	.944
Self-Blame	1.02	1.164	.47	.910	.85	1.108	2.694	.072
Parent-Child Relationship	9.46	2.287	9.94	2.242	10.12	2.379	.976	.380

Note. * $p < .05$

suggest that blame is a mediator, i.e., exposure to interparental violence results in self-blame, and that self-blame is a source of internalisation problems (e.g., Selçuk et al., 2020).

We also sustain the findings of other studies, indicating that children exposed to interparental violence perceive a lower level of relationship with their parents (Selçuk et al., 2020). According to the literature, in violent families, the emotional bond of children with parents is weaker (e.g., Fosco & Grych, 2010; Humphreys & Bradbury-Jones, 2015), and children perceive their parents as more intrusive and manipulative (Selçuk et al., 2020).

Despite some research indicating that victims perceive more threat (e.g., Grych & Fincham, 1990; Figge et al., 2021), our results do not support that conclusion. One possible explanation is that children only experienced indirect violence. Children who witness interparental violence become frightened, but the perception of threat is probably more intense for children who are directly victimised (Boel-Studt & Renner, 2014). On the other hand, it must be underscored that parents have arguments, and even when they are not frequent or aggressive, non-victims could understand those arguments as threats because of their young age (McDonald & Grych, 2006). Children's cognitive abilities to understand disagreements change according to their age: compared to older children, younger children may more often perceive threats when they witness their parents' disagreements (McDonald & Grych, 2006), and they may be unable to distinguish the severity of the threat.

In this study, age had no significant results on the perception of interparental conflict by children who have been exposed to violence. The literature differs on this point in showing that younger children exhibit more problems as a result of exposure to interparental conflict (e.g., Kaslow & Thompson, 2008). According to Grych and Fincham (1990), due to their higher propensity for misinterpretation, younger children tend to perceive higher levels of self-blame in relation to conflicts between their parents. On the other hand, older children learn to control their emotions more quickly and tend to cognitively understand situations of greater complexity (Grych & Fincham, 1990), which helps them gain a better understanding of situations of violence they witness. However, the results did not show significant differences according to age, which could be related to the small age difference among the participants, all of whom were between 7 and 9 years old.

This study shows the importance of analysing the perception of interparental conflict in younger children (Holt et al., 2008), even if, in some cases, these children have difficulties evaluating the complexity of interpersonal relationships (Grych & Fincham, 1990; McDonald & Grych, 2006). Additionally, these results also contribute to extending the transcultural significance of this type of child maltreatment (Martinelli, 2020). It is important to properly assess the problem (Sani & Almeida, 2016) to effectively intervene in interparental violence (van Eldik et al., 2020) at primary, secondary, and tertiary levels.

This study is important for psychosocial intervention in child victimisation, both for its contribution to the assessment of very young children, given the scarcity of studies with this age-group as well as those that provide evidence to support concrete areas of intervention. Identifying the importance and role of individual and contextual factors

relating to children's perception of interparental conflict can broaden the scope of measures to be prioritised in the intervention, either for risk reduction or to identify areas of resilience to be strengthened. The intervention approach must be based on a multidimensional model that articulates the factors that should be assessed to produce an effective intervention focused both on the child and on resilience to confronting violence in different socialisation contexts.

Limitations

The current study has certain limitations that should be addressed. First, our samples are not representative of the Portuguese population as a whole, as they were collected in only one part of the country, and thus care should be taken in generalising the results. Additionally, it is very difficult to guarantee a clear distinction in relation to a child's experience of victimhood (i.e., exposed vs. not exposed to violence), and some mixing across groups might be anticipated. Furthermore, in the victims' group, the intensity and frequency of conflicts between parents were not measured, which is relevant to assessing the impact factors. Self-report studies can raise issues concerning the bias of answers due to fear of exposure, distortion of events experienced, issues of understanding, or even social acceptability. It is also expected that children's perceptions are subject to interference from other factors that were not assessed in this study (e.g., single, multiple, or multi-victimisation; quality of parental support, sociocultural issues), which may affect the results presented (Lopes et al., 2021; Martinelli, 2020; Sani et al., 2021). The use of more instruments should allow for a better characterisation of the relevant familiar reality of these children.

Despite these limitations, this study contributes to the assessment of school-age children who are victims of interparental violence. The assessment of children's perception of conflict between parents in this sample is of such importance that it demands further methodologically-thorough analyses.

Conclusion

This study is innovative in using a sample of children of younger ages, whereas existing research developed in Portugal (e.g., Silva & Calheiros, 2018) has used samples of older children or even teenagers. Additionally, this study extends the cultural reach of research regarding the perception of interparental conflict on children by demonstrating the usefulness of the CPIC-Y (e.g., Grych, 2000; McDonald & Grych, 2006) in a Portuguese sample. Furthermore, in this study, we identified significant differences between children exposed to interparental violence and children not recognised as victims; we verified that the highest levels of problems occur in children exposed to violent conflicts between their parents. In our study, there were differences between the groups with large effect sizes; that is, the difference between the variability of the means of each group on conflict properties, self-blame, and the parent-child relationship is significant.

In future studies, it will be important to address the limitations identified in this work. Additionally, it would be helpful to carry out longitudinal studies to investigate

the evolving realities of interparental violence from childhood to adulthood.

It is important to identify cases of exposure to interparental violence to effectively support the development of rigorous intervention programmes with specific goals. The character and magnitude of this problem should be better understood to provide adequate preventive measures for both children and families.

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Conflict of interest

The authors declare no conflict of interest.

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References

- Almeida T. C., Gonçalves, R. A., Sani, I. A. (2008). La agresividad en niños que testimonian la violencia de género. *Anuario de Psicología Jurídica*, 18, 113-118.
- Almeida, T. C., Ramos, C., Brito, J., & Cardoso, J. (2020). The Juvenile Victimization Questionnaire: Psychometric properties and polyvictimization among Portuguese youth. *Children and Youth Services Review*, 113. <https://doi.org/10.1016/j.childyouth.2020.105001>
- American Psychological Association [APA] (2017). *American Psychological Association's (APA) ethical principles of psychologists and code of conduct*. American Psychology Association.
- Boel-Studt, S., & Renner, L. M. (2014). Child and family-level correlates of direct and indirect peer victimization among children ages 6-9. *Child Abuse & Neglect*, 38(6), 1051-1060. <https://doi.org/10.1016/j.chiabu.2013.10.026>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum.
- Comissão de Proteção de Crianças e Jovens [CPCJ] [Child and Youth Protection Commission] (2020). *Avaliação da atividade das CPCJ: Relatório anual 2019* [Evaluation of CPCJ activity: Annual report 2019]. <https://www.cnpdpcj.gov.pt/relatorio-atividades>
- Cummings, E. M., Kouros, C. D., & Papp, L. M. (2007). Marital aggression and children's responses to everyday interparental conflict. *European Psychologist*, 12(1), 17-28. <https://doi.org/10.1027/1016-9040.12.1.17>
- Cummings, E. M., & Davies, P. T. (2010). *Marital conflict and children: An emotional security perspective*. Guilford Press.
- Davies, P. T., Sturge-Apple, M. L., Cicchetti, D., Manning, L. G., & Zale, E. (2009). Children's patterns of emotional reactivity to conflict as explanatory mechanisms in links between interparental aggression and child physiological functioning. *Journal of Child Psychology and Psychiatry*, 50, 1384-1391. <https://doi.org/10.1111/j.1469-7610.2009.02154.x>
- Figge, C. J., Martinez-Torteya, C., Bogat, G. A., & Levendosky, A. A. (2021). Child appraisals of interparental conflict: The effects of intimate partner violence and parent-child relationship quality. *Journal of Interpersonal Violence*, 36(9-10), 4919-4940. <https://doi.org/10.1177/0886260518794509>
- Flannery, D. J., Tossone, K., Kretschmar, J., Butcher, F., & Singer, M. I. (2019). Examination of a new brief screener to measure trauma symptoms and violence exposure among young children. *Violence and Victims*, 34(5), 733-751. <https://doi.org/10.1891/0886-6708.vv-d-17-00214>
- Fosco, G. M., & Grych, J. H. (2010). Adolescent triangulation into parental conflicts: Longitudinal implications for appraisals and adolescent-parent relations. *Journal of Marriage and Family*, 72, 254-266. <https://doi.org/10.1111/j.1741-3737.2010.00697.x>
- Fosco, G. M., Grych, J. H., & DeBoard, R. L. (2007). Making sense of family violence: Implications of children's appraisals of interparental aggression for their short and long-term functioning. *European Psychologist*, 12, 6-16. <https://doi.org/10.1027/1016-9040.12.1.6>
- Frankel, L. A., Umemura, T., Jacobvitz, D., & Hazen, N. (2015). Marital conflict and parental responses to infant negative emotions: Relations with toddler emotional regulation. *Infant Behavior & Development*, 40, 73-83. <https://doi.org/10.1016/j.infbeh.2015.03.004>
- Grych, J. H. (2000). The young children's perception of interparental conflict scales. Unpublished manuscript.
- Grych, J. H., & Fincham, F. D. (1990). Marital conflict and children's adjustment: A cognitive-contextual framework. *Psychological Bulletin*, 108, 267-290. <https://doi.org/10.1037/0033-2909.108.2.267>
- Grych, J. H., Wachsmuth-Schlaefler, T., & Klockow, L. L. (2002). Interparental aggression and young children's representation of family relationships. *Journal of Family Psychology*, 16, 259-272. <https://doi.org/10.1037/0893-3200.16.3.259>
- Haj-Yahia, M. M., Sokar, S., Hassan-Abbas, N., & Malka, M. (2019). The relationship between exposure to family violence in childhood and post-traumatic stress symptoms in young adulthood: The mediating role of social support. *Child Abuse & Neglect*, 92, 126-138. <https://doi.org/10.1016/j.chiabu.2019.03.023>
- Haj-Yahia, M. M., & Zoysa, P. (2008). Rates and psychological effects of exposure to family violence among Sri Lankan university students. *Child Abuse & Neglect*, 32, 994-1002. <https://doi.org/10.1016/j.chiabu.2008.05.001>
- Harold, G.T., & Sellers, R. (2018). Annual Research Review: Interparental conflict and youth psychopathology: An evidence review and practice focused update. *Journal of Child Psychology and Psychiatry*, 59(4), 374-402. <https://doi.org/10.1111/jcpp.12893>
- Holt, S., Buckley, H., & Whelan, S. (2008). The impact of exposure to domestic violence on children and young people: A review of the literature. *Child Abuse & Neglect*, 32(8), 797-810. <https://doi.org/10.1016/j.chiabu.2008.02.004>
- Hou, J., Yu, L., Fang, X., & Epstein, N. B. (2016) The intergenerational transmission of domestic violence: The role that gender plays in attribution and consequent intimate partner violence. *Journal of Family Studies*, 22(2), 121-139. <https://doi.org/10.1080/13229400.2015.1045923>
- Humphreys, C., & Bradbury-Jones, C. (2015). Domestic abuse and safeguarding children: Focus, response and intervention. *Child Abuse Review*, 24, 231-234. <https://doi.org/10.1002/car.2410>
- Jouriles, E. N., Spiller, L. C., Stephens, N., McDonald, R., & Swank, P. (2000). Variability in adjustment of children of battered women: The role of child appraisals of interparental conflict. *Cognitive Therapy and Research*, 24, 233-249. <https://doi.org/10.1023/A:1005402310180>
- Kaslow, N. J., & Thompson, M. P. (2008). Associations of child maltreatment and intimate partner violence with psychological adjustment among low SES, African American children.

- Child Abuse & Neglect*, 32, 888-896. <https://doi.org/10.1016/j.chiabu.2007.09.012>
- Katz, E. (2016). Beyond the physical incident model: How children living with domestic violence are harmed by and resist regimes of coercive control. *Child Abuse Review*, 25, 46-59. <https://doi.org/10.1002/car.2422>
- Kloppen, K., Maehle, M., & Kvello, Ø. (2015). Prevalence of intrafamilial child maltreatment in the Nordic countries: A review. *Child Abuse Review*, 24, 51-66. <https://doi.org/10.1002/car.2324>
- Lin, H., Yang, Y., Elliott, L., & Green, E. (2020). The associations between parental conflict, attachment anxiety, and somatic symptoms in adult children affected by parental separation. *Journal of Divorce & Remarriage*, 61(3), 168-185. <https://doi.org/10.1080/10502556.2019.1679594>
- Lloyd, M. (2018). Domestic violence and education: Examining the impact of domestic violence on young children, children, and young people and the potential role of schools. *Frontiers in Psychology*, 9, 2094. <https://doi.org/10.3389/fpsyg.2018.02094>
- Lopes, A. I., Leal, J., & Sani, A. (2021). Parental mental health problems and the risk of child maltreatment: The potential role of psychotherapy. *Societies*, 11(3), 108. <https://doi.org/10.3390/soc11030108>
- Martinelli, A. (2020). Violência contra a mulher: Uma abordagem histórica [Violence against women: A historical approach.]. *Teoria Jurídica Contemporânea*, 5(2), 12-44.
- McDonald, R., & Grych, J. H. (2006). Young children's appraisals of interparental conflict: Measurement and links with adjustment problems. *Journal of Family Psychology*, 20, 88-99. <https://doi.org/10.1037/0893-3200.20.1.88>
- McDonald, R., Jouriles, E. N., Tart, C. D., & Minze, L. C. (2009). Children's adjustment problems in families characterized by men's severe violence toward women: Does other family violence matter? *Child Abuse & Neglect*, 33, 94-101. <https://doi.org/10.1016/j.chiabu.2008.03.005>
- Mendes, M., Almeida, T. C., & Soeiro, C. (2017). *Adolescent's perception of interparental conflict and coping styles: Systematic review*. II CiiEM International Congress 'Translational Research and Innovation in Human in Health Sciences'.
- Miller, L. E., Howell, K. H., & Graham-Bermann, S. A. (2014). Developmental changes in threat and self-blame for preschoolers exposed to intimate partner violence (IPV). *Journal of Interpersonal Violence*, 29(9), 1535-1553. <https://doi.org/10.1177/0886260513511533>
- Mueller, I., & Tronick, E. (2019). Early life exposure to violence: Developmental consequences on brain and behavior. *Frontiers in Behavioral Neuroscience*, 13, 156. <https://doi.org/10.3389/fnbeh.2019.00156>
- Pereira, T., Magalhães, E., Silva, C. S., Antunes, C., & Prioste, A. (2020). Interparental violence: Professionals' perspectives in the child protection system. *Children and Youth Services Review*, 118, 105433. <https://doi.org/10.1016/j.childyouth.2020.105433>
- Ragavan, M. I., Culyba, A. J., Shaw, D., & Miller, E. (2020). Social support, exposure to parental intimate partner violence, and relationship abuse among marginalized youth. *Journal of Adolescent Health*, 67, 127-130. <https://doi.org/10.1016/j.jadohealth.2020.01.020>
- Sani, A. I., & Almeida, T. C. (2016). Versão Portuguesa da Escala de Percepção da Criança sobre os Conflitos Interparentais - Versão para crianças dos 7 aos 9 anos (EPCCI-C). *Análise Psicológica*, 4, 457-468. <https://doi.org/10.14417/ap.1100>
- Sani, A. I., Bastos, D., Dinis, & M. A. P. (2021). Child and adolescent multiple victimization and/or polyvictimization: A Portuguese comparative study. *Societies*, 11(4), 1-11, Article 120. <https://doi.org/10.3390/soc11040120>
- Sani, A., Nunes, L., & Caridade, S. (2017). Child exposure to domestic violence: The risk of drug abuse and dating violence. In M. Ortiz (Ed.), *Domestic violence: Prevalence, risk factors and perspectives* (pp. 69-82). Nova Science Publishers, Inc.
- Selçuk, Ş., İçcanoğlu, Z., Sayıl, M., Sümer, N., & Berument, S. K. (2020). Factors Influencing Children's Appraisals of interparental conflict: The role of parent-child relationship quality. *Journal of Family Issues*, 41(11), 2022-2044. <https://doi.org/10.1177/0192513X20910765>
- Sharp, C., Vanwoerden, S., Jouriles, E. N., Godfrey, D. A., Babcock, J., McLaren, V., McFarlane, J., Brashear, B., Walton, Q., & Temple, J. R. (2020). Exposure to interparental intimate partner violence and the development of borderline features in adolescents. *Child Abuse & Neglect*, 103, 104448. <https://doi.org/10.1016/j.chiabu.2020.104448>
- Silva, C. S., & Calheiros, M. M. (2018). Stop yelling: interparental conflict and adolescents' self-representations as mediated by their perceived relationships with parents. *Journal of Family Issues*, 39(7), 2174-2204. <https://doi.org/10.1177/0192513x17741176>
- Silva, C. S., Calheiros, M. M., & Carvalho, H. (2016). Interparental conflict and adolescents' self-representations: The role of emotional insecurity. *Journal of Adolescence*, 52, 76-88. <https://doi.org/10.1016/j.adolescence.2016.07.007>
- Turner, W., Broad, J., Drinkwater, J., Stanley, N., Szlassy, E., & Feder, G. (2017). Interventions to improve the response of professionals to children exposed to domestic violence and abuse: A systematic review. *Child Abuse Review*, 26, 19-39. <https://doi.org/10.1002/car.2385>
- Tronick, E. (2017). The caregiver-infant dyad as a buffer or transducer of resource enhancing or depleting factors that shape psychobiological development. *Australian and New Zealand Journal of Family Therapy*, 38(4), 561-572. <https://doi.org/10.1002/anfz.1274>
- Van Dijk, R., van der Valk, I. E., Deković, M., & Branje, S. (2020). A meta-analysis on interparental conflict, parenting, and child adjustment in divorced families: Examining mediation using meta-analytic structural equation models. *Clinical Psychology Review*, 79, 101861. <https://doi.org/10.1016/j.cpr.2020.101861>
- Van Eldik, W. M., de Haan, A. D., Parry, L. Q., Davies, P. T., Luijk, M. P. C. M., Arends, L. R., & Prinzie, P. (2020). The interparental relationship: Meta-analytic associations with children's maladjustment and responses to interparental conflict. *Psychological Bulletin*, 146(7), 553-594. <https://doi.org/10.1037/bul0000233>
- Visser, M., Overbeek, M. M., Schipper, J.C., Schoemaker, K., Lamers-Winkelmann, F., & Finkenauer, C. (2016). Mother-child emotion dialogues in families exposed to interparental violence. *Journal of Child Custody*, 13(2), 178-198. <https://doi.org/10.1080/15379418.2016.1153442>
- Webb, H. J., Zimmer-Gembeck, M. J., Scuffham, P. A., Scott, R., & Barber, B. (2018). Family stress predicts poorer dietary quality in children: Examining the role of the parent-child relationship. *Infant and Child Development*, 27, e2088. <https://doi.org/10.1002/icd.2088>
- Warmuth, K. A., Cummings, E. M., & Davies, P. T. (2020). Constructive and destructive interparental conflict, problematic parenting practices, and children's symptoms of psychopathology. *Journal of Family Psychology*, 34(3), 301-311. <https://doi.org/10.1037/fam0000599>
- World Medical Association (2013). World medical association declaration of Helsinki: Ethical principles for medical research involving human subjects. *JAMA*, 310(20), 2191-2194. <https://doi.org/10.1001/jama.2013.281053>
- Zhang H., Wong W., Fan S., & Yip P. S. F. (2019). Intimate partner violence perpetration and victimization among Chinese young adults: Profiles and associated health problems. *Violence and Victims*, 34(5), 838-849. <https://doi.org/10.1891/0886-6708.VV-D-18-00140>